

U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE
FORT LEAVENWORTH, KANSAS

ABSTRACTS OF
MASTER OF MILITARY ART
AND SCIENCE (MMAS)
THESES AND SPECIAL
STUDIES

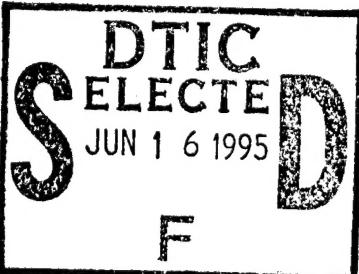
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FOR THE COMMANDANT:

Philip J. Brookes

Philip J. Brookes
Director, Graduate Degree Programs

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HOW TO USE THIS BOOK

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The Degree
Master of Military Art and Science

1128. Military Power in Operations Other Than War, by Major Melissa A. Applegate, USA, 230 pages.

In a post-cold war environment, U.S. military deployments to promote stability, foster democratic reform, and encourage peace in an increasingly volatile world have risen dramatically. This thesis proposes that during protracted intervention, the U.S. reaches a strategic point of diminishing returns where the costs of intervention begin to surpass the strategic gains to be made; and how a myriad of variables contribute to the decreasing effectiveness of the military over time. Further, failure to recognize this point can significantly affect goal attainment, and protracted intervention can negatively affect readiness. The study examines U.S. intervention and the dilemmas that inevitably arise during protracted U.S. involvement overseas; it identifies problems associated with intervention and reviews current strategic thinking by noted authors and area experts. The study then examines two recent interventions, Somalia and Panama, applying a research model to determine if the U.S. was successful in achieving its strategic goals. A feasibility, acceptability and suitability assessment determines if military forces was the appropriate instrument to use and if not, why. The conclusions drawn tend to support the hypothesis, but they make even more evident the need for further study.

1129. The Command, Control, Communications and Automation Needs for the Combined Arms Team, by Major Peter R. Barnes, USA, 90 pages.

This study assesses the adequacy of the Army Command and Control Systems with respect to the significant increases in mobility, lethality, and capabilities of advanced weapons systems. Command and control becomes increasingly important in synchronization, operational tempo, and increased situational awareness on the modern battlefield. These capabilities ensure commanders will be able to operate within the decision cycles of any potential adversary. The Army is wrestling with the problems of independent development of major weapons systems and the inability of those systems to communicate with each other. Command and control of these systems are of paramount importance to fighting forces because more frequently commanders will make decisions based on automated information databases. This study has shown that the influences of rapidly advancing technology and increasing need for information on the modern battlefield will place untenable demands on any automated command and controls system. This analysis has shown that current technology offers limited opportunities for eliminating information overload and that tactical command and control systems will become bogged down during periods of peak loading.

1130. National Service and Its Effect on the Army's Ability to Acquire Quality Service, by Captain Allen W. Batschelet, USA, 112 pages.

This thesis investigates the effect the National and Community Service Act of 1993 will have on the Army's ability to acquire high-quality soldiers. The research shows that the Act of 1993 will attract one-third of the high-quality youth who had previously indicated a desire to serve in the Army. This equates to 24,500 of the 70,000 individuals the Army must recruit annually. The analysis includes a determination of the factors affecting the problem: (1) Young Americans willingness to serve in the Army, (2) The Army's requirement to enlist quality soldiers given the increasing technological complexity of Army weapon and support systems, (3) Targeted youth population size and quality, (4) Benefits of serving in a national service program or the Army. Career choices of the targeted youth regarding Army and National Service were analyzed in the context of the four factors affecting the problem. Money for college is the primary consideration of high-quality youth when making a career decision. The National Service Act of 1993 provides an educational benefit nearly equal to that offered by the Army. This research shows that the majority of high-quality young people prefer National service to Army service as a means of obtaining money for college.

1131. Beda Fomm: An Operational Analysis, by Lieutenant Colonel James G. Bierwirth, USA, 115 pages.

This study analyzes the Army's doctrinal definition of the battlefield framework through examination of British operations against the Italians in North Africa during the period, June 1940 through February 1941. This illustrates how commanders can consider the battlefield framework in organizing combat power. The study examines how commanders at the tactical and operational levels of war use the concepts of area of operations, battle space, and battlefield organization. This study also shows why tactical and operational commanders must consider each other's battlefield framework. It shows how actions in one commander's framework affects the other's. This study analyzes, through the battlefield framework, General Wavell's actions as the operational commander and their effects on the tactical commander, Lieutenant General O'Connor. Additionally, the study analyzes Lieutenant General O'Connor's battlefield framework and how actions at the tactical level created opportunities for the operational commander.

1132. Counter-Insurgency in Cuba: Why Did Batista Fail?, by Major Ricardo J. Blanco, USMC, 122 pages.

This thesis analyzes the counterinsurgency efforts of the second Batista regime of Cuba, 1952-1958, using the "Sword Model" developed by Max G. Manwaring and John T. Fishel. The "Sword Model" is a paradigm developed to predict the probability of success of insurgencies by evaluating seven major criteria which are referred to as "dimensions." The thesis concludes that all seven dimensions were detrimental to the longevity of the Batista regime. The major contributors to Batista's failure were his lack of

legitimacy and poor unity of effort within the government as well as between Cuba and the major intervening power, the United States. Weak democratic traditions in Cuban society and a biased international news media exacerbated the crisis. Based on the research conducted, it is believed that the "Sword Model" would have accurately predicted the outcome of the second Batista regime were it available during the 1950's. The "Sword Model" is therefore a viable tool in evaluating insurgencies.

1133. An Effective Analysis of the Tactical Employment of Decoys, Captain Kenneth S. Blanks, USA, 130 pages.

This thesis examines the tactical employment of decoys. The Army invested \$7.5M into fielding multispectral tactical decoys. Initially, many company commanders were reluctant to include the decoys in their tactical planning. Now, even more commanders believe that preparation for combat involves too many more important matters that preclude integrating this nonlethal system into their already time and resource constrained tactical operations. This thesis provides some insight into this concern and suggests ways in which decoys may be employed. Analysis, both qualitative and quantitative in nature, is the original work of the author. Historical examples from WW II, Operation Desert Storm, and the Combat Training Centers provide qualitative data for the subjective of the combat effectiveness of decoys. Janus and CASTFORM wargaming results serve as quantitative data for a statistical assessment of decoy combat effectiveness. The author concludes that decoys do enhance combat effectiveness when decoy employment is incorporated into the tactical scheme of maneuver.

1134. An Eternal Constant: The Influence of Political Ideology on American Defense Policy 1783-1800 and 1989-1994, by Major Edward L. Bowie, USA, 196 pages.

This study traces the historical origins, evolution, and continuing influence of liberal and conservative political ideology on American Defense policy. The study concentrates on a comparison of the periods 1783-1800, the military debates of the early republic, and 1989-1994, the current debates on the structure of the post-Cold War American Military. The central thesis is that the parallels between the public debates on the proposed downsizing of the United States' Armed Forces in the 1990s and the debates on the creation of a permanent American military establishment in the 1780s and 1790s reflect the continuing influence of fundamental republican/liberal and federalist/conservative political ideologies. During the nation's solidified into coherent political movements which continue to dominate public debate. The study concludes that an understanding of the origin and nature of these pro and anti-military political prejudices is essential if military leaders are going to design future forces that will accommodate the concerns of all parties. Specifically, these force structures must allow for the complex and unique relationship between American society, the professional military, and the citizen soldier.

1135. The Impact of the Vietnam Analogy on American Policy in El Salvador From 1979 to 1984, by Major Michael P. Brogan, USA, 103 pages.

This study outlines the influences that the outcome of the Vietnam War had on American foreign policy in another insurgency situation in the Republic of El Salvador during the formative years of that policy, 1979 to 1984. The presented concept shows how the emotional trauma of America's failure in Vietnam impacted on virtually all the players in this violent drama. Such an impact ultimately had an influence on the prosecution of the U.S. counterinsurgency plan and the push to eliminate some of the key underlying causes of conflict, finally influencing the outcome of the war. The study carefully outlines the scope of the Vietnam analogy and touches on all key policy aims of both the Carter and Reagan administrations in the context of America's cold war strategy in the region. Covered herein are the profound changes wrought in El Salvador which brought that nation from a floundering, quasi-democracy, with commonplace human rights abuses, to a real democracy with a transformed social and political structure and a gradual but significant increase in concern for human rights.

1136. Could the United States Army Have a Positive Impact on Insurgency and Counterdrug Problems in Peru?, by Major Michael J. Burns, USA, 110 pages.

This study analyzes the Peruvian Maoist Shining Path insurgency and its association with illegal drug traffickers to determine if United States Army elements deployed to the region, could have a positive impact on the Peruvian Government's fight against these terrorists. The Shining Path insurgency is the most serious insurgency now active in Peru. The actions of the Shining Path threaten the United States' interests and our goals on two fronts. First, the ongoing insurgency threatens the regional security of a democratic country, and secondly, the drug trade in Peru is threatening the very foundation that has made the United States a world power. Peru's internal security problems are particularly complex in that both the drug and insurgency problems have become inseparable. This study focuses on branches of the Army to determine what contributions that branch brings to the conflict, and if that contribution assists in defeating the Shining Path.

1137. Acquisition Systems Protection Planning The Manhattan Project: A Case Study, by Captain George E. Conklin, USA, 135 pages.

This study examines the counterintelligence and security program of the Manhattan Project, the United States acquisition of the atomic bomb, using the Department of Defense's Acquisition Systems Protection Program (ASPP) methodology. Using the ASPP methodology as presented in the April 1993 draft of DOD Manual 5200.1, Acquisition Systems Program Protection, the study examines the Manhattan Project's: essential program information, technologies and systems (EPITS), foreign intelligence collection threat assessment, and countermeasures programs. The study, using today's criteria, concludes that the project's countermeasures program was marginally successful because the project leadership failed to clearly

identify and counteract the collection threat posed by wartime ally, the Soviet Union. The study determined that there are lessons learned from the historical case that are applicable to the contemporary ASPP. Lessons learned include: proposed doctrinal changes, threat assessment methodology, and counterintelligence techniques and procedures.

1138. *Balloons of the Civil War*, by Lieutenant Commander Steven D. Culpepper, USN, 162 pages.

This historical study investigates the military effectiveness and combat power of Civil War balloons. The categories inherent to military effectiveness include timeliness, accuracy, usefulness, operational considerations, and logistics. Limited by available material, especially those documenting Confederate efforts, this paper highlights the history of ballooning prior to the Civil War, and focuses on the Union balloon operations during the initial fall and winter of 1861-2, the Peninsular campaign, and Chancellorsville. The analysis of the measures of effectiveness from these three periods indicates the Union balloon corps amply validated its worth. War, however, is more than just a science. In this case, the "art" of warfare better explains the collapse of Thaddeus Lowe's organization after Chancellorsville. The first two modern implications of this case study involve both the unfavorable impact of personality, and the commander's influence on the assimilation of new technology. Are we better today at bringing on-line the benefits associated with technology? The final point links to the concept of battle command. With the massive infusion of information available to the modern commander, are we still sending him to the lions without a whip?

1139. *National Reconnaissance Support to the Army*, by Captain Brian J. Cummins, USA, 147 pages.

This unclassified study evaluates the intelligence support the Army received from national intelligence agencies during JUST CAUSE and the Gulf War by using the seven characteristics of intelligence quality found in Joint Pub 2-0. The new national military strategy anticipates a less defined threat than during the Cold War. Also, downsizing pressures will proportionately reduce national and service intelligence support to the combatant CINCs and the services. This situation will require the Army to rely more than ever on national reconnaissance to support its warfighting intelligence needs. A review of the Gulf War and JUST CAUSE indicates that although national intelligence has the capability to answer many tactical and operational reconnaissance questions, it generally fails to do so. The reasons are that national intelligence is focused to serve senior government policy makers not warfighters. National intelligence products are often caveated by differing analytic assessments that in effect are either ill-suited or cause confusion for tactical commanders. Finally, joint doctrine did not clearly set out coordination procedures or the process by which national reconnaissance is transmitted to tactical users in a timely manner.

1140. The Army and Moonshiners in the Mountainous South During Reconstruction, by Major Craig J. Currey, USA, 123 pages.

This study investigates the role of the Army in combating moonshiners in the mountainous South during Reconstruction. The military committed numerous detachments across the South to aid U.S. marshals and revenue agents in eliminating stills. This assistance, although significant quantitatively, failed to end moonshining. The thesis provides insight into the Reconstruction Army. After reviewing structures, morale and soldier quality, it analyzes the moonshine problem in society. Arrayed against each other were illicit distillers and federal authorities. Focusing on the motivations of both sides, the study introduces military detachments into this complex historical equation. Although covering the general officer level, the emphasis is on company-grade officers and enlisted soldiers. The study concludes with a comparison of the moonshine war to the current drug war in order to evaluate what lessons learned have applicability in the modern Operations Other Than War context.

1141. Does Current Suppression of Enemy Air Defense (SEAD) Doctrine Support Air Maneuver?, by Captain Peter E. Curry, USA, 150 pages.

This study investigates the effectiveness of current Suppression of Enemy Air Defenses (SEAD) doctrine in relation to U.S. Army doctrine of air maneuver. The thesis' main focus is Corps and Division level SEAD operations in support of helicopters. Currently in Army doctrine, there is not a wide breadth of information concerning air maneuver. This is beginning to change. This study identifies key maneuver concepts that can apply to air maneuver. As air maneuver doctrine evolves, SEAD doctrine must also change to meet the new requirements that air maneuver brings to the battlefield. By using three case requirements: Operations LAM SON 710, Urgent Fury, and Desert Storm, this study identifies SEAD requirements. These studies show that the firepower-only SEAD solution that the Army currently employs is inadequate. The most effective anti-helicopter weapons are difficult to target, causing shortcomings in the Army's fire support approach. Finally, this study concludes that the Army needs a broader approach to SEAD rather than relying solely on fire support. It needs closer integration of air maneuver into the overall plan, better command and control, different equipment, as well as a more prudent use of all fire support assets.

1142. Non-Strategic Nuclear Training in a Non-Nuclear Army, by Major Michael E. Donovan, USA, 127 pages.

This study investigates the ability of a U.S. Army corps staff to nominate appropriate non-strategic nuclear targets. The staff is investigated as to its manning, training, and equipment to nominate targets for Air Force and Navy delivered nuclear weapons that the Corps could exploit to accomplish operational objectives. All levels of joint and service specific doctrine are examined along with limited non-governmental resources to determine corps staff requirements and desirable corps staff qualities. The structure, training, and equipment of a corps staff are then examined to

determine what each staff cell can contribute to nuclear planning. Finally, the staff is assessed as to its ability to meet the requirements determined earlier in the study. The study finds the corps staff to be marginally manned, trained, and equipped for non-strategic nuclear target nomination. The basic structure and operational capabilities of the staff are found to be sound. The principal deficiencies are found to be inadequate nuclear training throughout the officer education system and an unsatisfactory vision for nuclear operations in principal doctrinal manuals, such as FM 100-5. These leave the corps staff ill prepared to plan or execute operations that exploit nuclear effects.

1143. Marshal Jean Lannes in the Battles of Saalfeld, Pultusk, and Friedland, 1806 to 1807: The Application of Combined Arms in the Opening Battle, by Major Robert E. Everson, USA, 150 pages.

The French Army corps during the Napoleonic era was a combined arms organization, designed as a self-sustaining combat unit which could operate independently from the rest of the army. One corps was designated as the advanced guard to the French army's main body and acted as the unit which would make first contact with the enemy's army. This corps developed the situation while other corps would attempt to maneuver to the rear of the enemy force and consequently fight a major battle under Napoleon's control. The advanced guard corps which made first contact, would fight an opening battle which could last many hours until reinforcements arrived. The corps under Marshal Lannes in 1806 to 1807 fought three opening battles. During each battle the corps conducted their security and reconnaissance while moving toward the enemy, seized their initial positions on the impending battlefield and fought as a combined arms organization for the duration of the opening battle. This study shows how each of the branches; artillery, infantry, and cavalry, interacted in the opening battle. This study also reveals how Marshal Lannes established a combined arms advanced guard element within his corps each time he moved the corps as the advanced guard for the French Army. Although this advanced guard element was not a doctrinal organization for the French Army, the elements mission was strikingly similar to the larger corps acting as an advanced guard, but on a reduced scale.

1144. Adaptive Joint Force Packaging: U.S. Atlantic Command's Key to Army Force Structure, by Major Francis A. Finelli, USA, 184 pages.

In September 1993, President Clinton approved a change to the Unified Command Plan that placed most Army CONUS-based forces under a single unified command, the U.S. Atlantic Command, and removed FORSCOM's specified command status. One of USACOM's new missions is to ensure the joint readiness of this force and to deploy it in joint force packages adapted to theater CINC requirements. These adaptive JFPs prescribe how the force projection Army will be organized to deploy missions across the operational continuum. This study investigates the resource implications of this new mission on the Department of the Army's Title 10 function of service organization. AJFPs will be capability-based, not directly resource-constrained, and may be developed from a relatively short-run CINC's

perspective. Alternatively, HQDA organizes the service based on resource constrained, long-run assessments of required capabilities for all the unified CINCs. These perspectives may be substantially different and can create friction in the Defense Planning Systems. USACOM can use force structure or budget pressures to influence Army organization to better support AJFPs. This study applies a bureaucratic politics model to estimate whether USACOM could reduce the flexibility of HQDA to organize the service.

1145. The Marine Corps Budget and Contingency Operations: Is the Funding Adequate to the Mission?, by Lieutenant Commander Joseph M. Flynn, USN, 110 pages.

The end of the Cold War has led to significant downsizing in the United States military establishment. The American people, through their elected representatives in the Congress, are seeking to realize a "Peace Dividend" as a result of the perceived lack of a threat in the world. Defense spending is lower than at any time since the latter years of the Carter Administration, and projected to decline further. But as Department of Defense appropriations decline, U.S. military forces have been used in combat, peacekeeping, humanitarian, and disaster relief operations at an increasing rate. The Marine Corps alone has been involved in thirteen separate major operations since the fall of the Berlin Wall. This study examines the Marine Corps' participation in three operations since 1989 and examines the manner in which those operations were funded. When such operations are funded below the level of their eventual cost, the Marine Corps must pay for them, at least initially, by withdrawing funding from other areas of its budget. This study examines the effects on the future combat readiness of the Marine Corps which have resulted from the inadequate funding of the missions assigned.

1146. Air-to-Air Combat Effectiveness of Single-Role and Multi-Role Fighter Forces, by Major Michael W. Ford, USAF, 135 pages.

In their continuing efforts to determine how best to meet all global military challenges, U.S. Air Force leaders have elected to discontinue fielding fighter forces dedicated exclusively to air-to-air combat. Driven almost entirely by budget considerations, these decisions will result in multi-role forces only partially concerned with air-to-air combat. What impact this restructuring will have on overall U.S. air-to-air combat capability has not been determined, however, and so provides the rationale for this research. This thesis examines the air-to-air combat performance of various single-role and multi-role fighter forces during past military conflicts. Eleven criteria, ten objective and one subjective, are used to measure and compare these two groups. The objective and subjective analyses together form the basis for determining the relative air-to-air combat effectiveness of these forces. The comparative analyses used in this research show that single-role fighter forces have consistently outperformed multi-role forces as measured by the criteria used.

Therefore, this thesis concludes that single-role air-to-air fighter forces are more effective than multi-role fighter forces in the conduct of air-to-air combat operations.

1147. Army National Guard Medical Readiness Training Exercises in SOUTCOM, by MAN Nancy A. Fortuin, ARNG, 139 pages.

Medical Readiness Training Exercise (MEDRETES) conducted by military medical units in a field environment, where US military personnel conduct medical evaluation, treatment, and health education for persons who are not health care beneficiaries of the US government. The primary mission of these exercises is the training of military personnel. The Army National Guard (ARNG) has actively pursued these training opportunities which provide training in environments which closely approximate what they might experience in times of conflict. Over the past ten years the bulk of this training has occurred in the Southern Command area of responsibility. In 1987, the ARNG established a Field Medical Training Site in Panama which provided the process and infrastructure for medical units to deploy to Central or South America on 2-3 week annual training (AT) periods to participate in MEDRETES. The ARNG MEDRETE program in Southern Command provides an excellent case study showing how reserve component forces, while in an AT status, can serve as a vital resource to a CINC's peacetime strategy, as well as when mobilized in time of war.

1148. Joint Operations at the Campaign of Santiago, by Lieutenant Commander Michael A. Fox, USN, 93 pages.

This study is a historical analysis of the joint operations between the United States Army and Navy during the Santiago Campaign of the Spanish-American War. The study examines the U.S. military's preparations for the campaign, including mobilization and development of campaign plans at both the strategic and operational levels; details the actions of the U.S. military during the campaign, from the landing phase through the siege of Santiago to the eventual Spanish surrender; and analyzes the campaign lessons learned as well as the changes and reforms that took place in both services in the ten-year period following the Spanish-American War. This cooperation between services is imperative to conducting a successful campaign. As a result, the U.S. military instituted several important changes and reforms to help ensure better cooperation in future joint actions. This study also shows that doctrine can be developed by examining the lessons learned of a military operation, as was the case for the landing operations and naval gunfire support performance at Santiago.

1149. Total Quality Management in an Army Truck Battalion, by Major Thomas G. Gargiulo, USA, 155 pages.

This study investigates the applicability of Total Quality Management (TQM) to highway operations functions in a truck battalion. Although the Army's senior leadership has embraced the use of TQM, it has been used primarily at the installation level and in acquisition and health services management functions, with little integration at the tactical level. The study begins

with a description of TQM and its benefits. The research uses case study methodology to determine the effectiveness of a Process Action Team (PAT) in solving operational problems taken from an Army truck battalion. During a simulated PAT, Command and General Staff College students role-played battalion positions and developed recommendations to improve the battalion's operations. The recommendations were then assessed for feasibility by a separate panel of officers with experience in the case battalion. The research indicates the use of PATs may be an effective way to solve systemic problems and improve the quality of operations in a battalion.

1150. A Methodology for the Transition from National Strategy to Adaptive Force Packaging, by Lieutenant Commander David W. Gruber, USN, 148 pages.

This study proposes a methodology for determining adaptive force packaging in support of martial operations. This non-quantitative process traces the path from national strategy to force selection for either preemptive or reactionary military deployments. The intention is to provide the planner with a template for appropriate military force selection in support of national objectives. The I-5 Model, initially developed by the author as an aid in defining how the military integrates into national strategy, forms the basis of this thesis. This model formalizes the path from national strategy to a defined operational environment and incorporates the five elements of national power--military, economic, political/diplomatic, informational and humanitarian. Examination of the environment of military operations, traditionally termed "battle space" is also a salient aspect of this study. A proposed new concept, Milspace, expands on the definition of battle space to include both combat and non-combat operations and accounts for external influences and time. Finally, as an adjunct to this research, this study provides a tabular compilation of all military forces available to the planner.

1151. Sufficiency of Doctrine for the use of Armor in Military Operations on Urban Terrain, by Major David B. Hain, USA.

This thesis examines the United States Army's current written doctrine for military operations on urbanized terrain to determine if it is sufficient for the use of armor at battalion task force level and below. This study describes the current doctrine, traces its development since World War II, and critiques it against doctrinal standards and lessons learned from historical battles. The tests of sufficiency are presence, consistency, and validity. A survey of superseded manuals provides insight and standards for the tests of presence and consistency. Analysis of lessons learned from three urban battles and the essential characteristics of armor--mobility, protection, and firepower--provide the standards for the test of validity. The study concludes that the current doctrine for use of armor on urban terrain at the battalion task force level and below is sufficient to guide the Army's training, planning, and execution of urban operations. The recommendations include a complete revision of Field

Manual 90-10 and the addition of implementing tactics, techniques, and procedures for urban operations in future versions of the FM 71 series of manuals.

1152. An Assessment of Future United States Naval Force Structure in the Pacific Theater, Lieutenant Commander Scott A. Hastings, USN, 167 pages.

The naval force structure proposed by the 1993 Department of Defense "Bottom Up Review" was analyzed in terms of three force planning cases built around illustrative scenarios using representative depictions of future threats. Each case included: regional analysis in terms of mission, forces, area, and command and control; development of military requirements; and comparison of requirements and capabilities, identification of shortfalls, and characterization of risk. A notional U.S. carrier battle group and air wing for the year 2,000 were examined in scenarios involving a conventional global war with a reconstituted Russia, a major regional contingency on the Korean peninsula, and a lesser regional contingency involving a freedom of navigation dispute with Indonesia. The scenarios represent different levels from the spectrum of conflict. The future naval force was found insufficient to ensure victory in global conventional war, the scenario which involved the greatest risk to U.S. interests. The future force, optimized for blue-water operations, was also shown seriously deficient in countering mines and diesel submarines, another threat which entailed the potential for damage to U.S. interests.

1153. Operational Performance of the U.S. 28th Infantry Division, September to December 1944, by Major Jeffrey P. Holt, USA, 173 pages.

This study analyzes the operational performance of the 28th Infantry Division during a period of high intensity combat in the European Theater of Operations. The focus is on the difficulties the division experienced within its subordinate infantry units. Infantrymen, though comprising less than 40 percent of the division's total strength, absorbed almost 90 percent of all casualties. The high casualty rate within infantry units severely curtailed the operational performance of divisions in the U.S. Army force structure. This inadequacy forced divisions to remain in combat for excessive durations, greatly increasing battle and nonbattle casualties. The army's personnel system further contributed to the problems infantry divisions experienced within their infantry units. It failed to provide sufficient number of infantry replacements in a timely manner and there was widespread dissatisfaction with the quality of infantry replacements. This study shows that the U.S. Army failed to realize both the importance of infantry units to the war effort and the severity of combat on the modern battlefield. The result was an infantry force structure poorly designed to accomplish its wartime mission.

1154. Military Support of Drug Traffic Interdiction: Is It Working?, by Major Gerald G. Howard, USA, 130 pages.

This study investigates the role and effectiveness of the United States military in national efforts to counter the trafficking of illegal drugs

into the country. It focuses on the effects of active forces in interdicting narcotics traffic originating in Central and South America. The study provides background on the history of military involvement, legal issues, drug trafficking organizations, and current military efforts. The study considers differing opinions on the effectiveness of the military and relates the arguments to the issue of measures of effectiveness. The military role in the national counterdrug effort is clearly one of support to law enforcement. Critics of the military effort cite the continued availability of narcotics as evidence of military failure. Proponents cite mission success and positive comments from supported law enforcement agencies as indicators of success. The controversy revolves around the absence of clearly stated measures of effectiveness upon which all parties have agreed. The study concludes that there is convincing evidence that the military effort has produced tactical and operational success while recognizing that strategic goals have yet to be met. The military, as with other agencies involved, cannot be singularly held responsible in this effort for strategic success or failure. Finally, measures of success must be appropriately developed and consistently applied.

1155. The Generalship of General Henri E. Navarre During the Battle of Dien Bien Phu, by Major Bruce H. Hupe, USA, 125 pages.

This study examines the generalship of the French Commander in Chief in Indochina, General Henri E. Navarre, during the battle of Dien Bien Phu in 1954. This thesis employs a model of generalship from the United States Army doctrinal publication, Field Manual 22-103, Leadership and Command at Senior Levels, to analyze the actions of General Navarre. Through the application of the model, this thesis tests whether American doctrine supports or refutes the judgment of history. The conclusion reached is that the defeat of the French forces at the battle of Dien Bien Phu was largely due to a failure of senior level leadership on the part of General Henri E. Navarre.

1156. German Special Operations in the 1944 Ardennes Offensive, by Major Jeffrey Jarkowsky, USA, 147 pages.

This study is a historical analysis of the German special operations conducted in support of their overall Ardennes offensive. It focuses on the two major special operations of the German offensive, Operations "Greif" and "Stoesser." Operation Greif was the German attempt to infiltrate a commando unit behind American lines disguised as American soldiers. Operation Stoesser, the last German airborne operation of the war, was designed to secure a key cross-roads behind American lines. These special operations failed because of faulty planning, inadequate preparation, and a lack of coordination between the special and conventional forces. These problems, exacerbated by a lack of preparation time, resulted in a pair of ad-hoc units that were unable to accomplish their primary missions, although the operations were characterized by boldness, initiative, and improvisation. This study also examines the strategic setting, planning, preparations, and conduct of these operations, as well as their impact on the overall campaign. This study also examines the key

lessons-learned that can be derived from both operations. Lastly, the study explores the implications of these lessons for the U.S. military of today.

1157. The Impact of Command Likelihood on Commitment, by Major Steven M. Jones, USA, 125 pages.

This study focuses on how commitment among Army officers, having between five and fifteen years of commissioned service, may be impacted as a consequence of the Army's current drawdown. It was hypothesized that officer commitment would decline as a result of a reduced likelihood of commanding a battalion. Additionally, an officer's branch specialty and number of alternatives defining a successful career were expected to have varying impact on commitment. Motivational and cognitive theories were found to be parsimonious in accounting for the hypotheses. The hypotheses were tested using a quasi-experimental technique in a 3X4X2 design which examined the manipulated effects of "likelihood of command" according to branch and sample type. Using a published inventory, each subject's commitment was assessed before and after the manipulation. The analyses revealed robust support for the principal hypothesis: likelihood of command does impact commitment. Branch specialty exhibited a differential effect on commitment, but not as a consequence of command likelihood nor the number of alternatives officers have for defining success as was hypothesized. Implications for expanding the Army's vision of career success and for the psychological research community were offered, and issues requiring further research were set forth.

1158. Marshal Louis N. Davout and the Art of Command, by Major John M. Keefe, USA, 149 pages.

This paper involves an in-depth study of the art of command at all three levels of warfare. It examines this art through the eyes of one of Napoleont Marshals, Louis N. Davout. The paper addresses and accomplishes three primary goals. First, it shows its relevance to modern day warfare. Second, the paper shows that Marshal Davout was the best of Napoleon's generals and had an art of command that rivaled the Emperor himself. Finally, the paper demonstrates how Davout was instrumental in winning the battle of Abensberg-Eckmuehl. The study proves that Marshal Davout displayed an art of command at Abensberg-Eckmuehl that ensured success for Napoleon during the early phases of his Austrian campaign of 1809. It does this through a detailed analysis of his actions throughout the five days of fighting from April 19 to April 23, 1809. The study then draws conclusions to help define the art of command from Davout's actions.

1159. Should the United States Army Procure the Total Quantity of Black Hawk Helicopters it Requires, by Major Robert W. Kenneally, USA, 116 pages.

The Bottom-Up Review established the Army force structure requirement to be four corps and fifteen divisions. As a result of the Bottom-Up Review, procurement of Black Hawk helicopters was cancelled at the end of fiscal

year 1996. This leaves the Army with a dilemma of whether to pursue programming procurements of the Black Hawk in the fiscal year 1996-2001 Program Objective Memorandum (POM) or to retain a mixed fleet of Black Hawk and UH-1H helicopters. This thesis does a comparative analysis of the Black Hawk and UH-1H to determine capabilities and cost differences that exist, and provides an analysis of their ability to perform Army utility helicopter doctrinal mission requirements. The results of the analysis suggest that based on current doctrinal requirements and force structure levels, the Army should continue to procure the Black Hawk helicopters needed to met the requirement of 2195 Black Hawks determined by the Bottom-Up Review.

1160. United States Joint Operations in the Tripolitan Campaign of 1805, by Major David M. King, USA, 124 pages.

In 1801, Yusef Caramanli, ruler of Tripoli, declared war on the United States. Yusef expectd the United States to agree to pay tribute in exchange for protection from Tripolitan corsairs. Instead, President Thomas Jefferson sent the navy. Four years later, the war continued. When a former consul to Tunis named William Eaton proposed using Yusef's brother Hamet in a campaign against Tripoli, Jefferson agreed to let him try. Eaton sought out Hamet in the Egyptian desert and assembled a mixed army of U.S. Marines, mercenaries, and Arabs. Eaton and his army then marched 500 miles across North Africa to the Tripolitan town of Derne. With assistance from the navy, Eaton captured Derne in America's first joint and combined military operation since the Revolutionary War. Alarmed by the fall of Derne, Yusef quickly agreed to a peace settlement in which the U.S. paid Yusef \$60,000. Eaton protested that if the U.S. negotiator had not agreed to such shameful terms, Eaton could have captured Tripoli and enforced a more favorable peace. An examination of the evidence shows that Eaton's chances of success were poor and the U.S. negotiator was correct in ending the war.

1161. Winning the Information War: Challenges of Providing Interoperable Information System Support to an Army-led Joint Task Force, by Major James P. Kohlmann, USA, 119.

Joint interoperability is the key to enhancing the Army's warfighting capabilities in the years to come. The ability to provide fully interoperable information system support to an Army-led Joint Task Force (JTF) deployed halfway around the world is critical to the effectiveness of the JTF. This thesis examines the ability of an Army-led JTF to achieve interoperable information exchange today, and whether or not today's information systems will support the joint command, control, communications, computers and intelligence (C4I) concept for the future--"C4I for the Warrior" (C4IIFTW). Information system interoperability is examined in the areas of command and control (C2), Air Task Order (ATO) exchange, and Secondary Imagery Dissemination (SID). Information system hardware, software, and program structures are investigated to determine which systems are best suited to be the basis for future interoperability standards. There is much work to be done by the Army to meet the C4IIFTW

requirements. Joint interoperability will not be effectively achieved if the Army continues on its present information system development course. In order to improve the joint interoperability of information systems, the Army must change its software development strategy to take advantage of software products developed by other services.

1162. 3X8 Artillery Tactics: Before, During, and After Operation Desert Storm, by Captain Henry S. Larsen III, USA, 109 pages.

This thesis examines the 3X8 direct support field artillery battalion in the Army's heavy divisions from its inception in 1976 to its present state. The study places special emphasis on documenting the operational change of the firing battery from primarily platoon-based operations before Operation Desert Storm to primarily battery-based operations during and after Operation Desert Storm. The thesis compares platoon and battery-based operations with the Army's initial intent for 3X8 operations, the Army's current doctrinal manuals, and its future artillery systems. The two future direct support systems studied are the M109A6 Paladin System (currently being fielded) and the Advanced Field Artillery System (AFAS). The thesis concludes in determining that platoon-based operations should be the primary method of employing firing batteries in 3X8 battalions both now and with future systems. The thesis makes a number of recommendations to facilitate platoon and battery-based firing battery operations.

1163. Customer Service and the U.S. Army Information Systems and Acquisition Agency, by Major Steven W. Larson, USA, 122 pages.

This thesis identifies the customer service attitudes between the United States Army Information Systems Selection and Acquisition Agency (USAISAAA) and program managers to better understand how to implement Total Army Quality (TAQ) in this agency. This study recommends ways that USAISAAA can improve its customer service. The thesis answers two subproblems. The first subproblem was to identify, analyze, and interpret the customer service attitudes that exist between USAISAAA and program managers. USAISAAA employees and program managers completed surveys to provide their perceptions of the customer service. The study then analyzed and interpreted the responses. The second subproblem was to identify, analyze, and interpret service quality concepts as they affect USAISAAA's customer service for program managers. Resulting recommendations provide ways for implementing TAQ in USAISAAA.

1164. Battlefield Stress: Adequacy of U.S. Army Doctrine, by Major Paul A. Laski, USA, 110 pages.

This study evaluates the adequacy of current U.S. Army doctrine for the control of battlefield stress. A framework for evaluation is developed from a review of the literature in the field of battlefield stress. This framework includes identification of the stressors in combat, normal and dysfunctional reactions to stressors, countermeasures for prevention of battlefield stress casualties, and a framework for treatment of battlefield stress casualties. Content analysis is used to compare the doctrine to

baseline criteria derived from the literature. A second set of criteria assessing the utility of the doctrine to the Army leader was also used. The study concludes that the current U.S. Army doctrine for the control of battlefield stress, as contained in FM 22-51 (Final Draft) is adequate. It identifies the major stressors in combat, symptoms of combat stress, key factors for the prevention of battlefield stress casualties, and an appropriate framework for treatment of battlefield stress casualties. The study recommends fielding FM

1165. The Role of Union Cavalry During the Atlanta Campaign, by Major Robert B. Leach, USA, 146 pages.

This study is a historical analysis of the effectiveness of Union cavalry during the Atlanta Campaign of the American Civil War. In a campaign noted for the highly skilled maneuver conducted by General William Tecumseh Sherman, the effective employment of the cavalry was essential. The Union cavalry had the missions of providing security to the flanks of the army and protecting the supply lines by guarding the railroad and by striking against the Confederate cavalry. Later in the campaign, the Union leadership introduced the task of destroying Confederate railroads as a cavalry mission. The Union cavalry failed to perform these missions adequately. First, this work investigates the tradition of the Union cavalry and the state of Sherman's cavalry at the beginning of the campaign. Secondly, an analysis of the cavalry operations breaks the use of cavalry into three phases and focuses on the various missions which were attempted. Finally, the study addresses the lessons learned and what the applicability is for modern operations. This study concludes that although the Union cavalry was well manned and well equipped, improper employment and deficient senior leadership caused it to play an unsuccessful and detrimental part in the overall campaign.

1166. Army Intelligence Officer Training and Education--Ramping Up for the Revolution, by Major Mary A. Legere, USA, 141 pages.

The Army's intelligence community is in the midst of a revolution. Fundamental changes in the threat, intelligence architecture, doctrine and technology have forced the intelligence community into a period of transition which when complete, will improve the quality of intelligence provided to the Army in the decade to come. MI's success in integrating these changes will depend on how well its leaders are educated on the implications of this revolution. This study investigates the question of whether the Army training system can prepare MI's field grade officers for this period of dynamic change. MI's revolution and its associated training requirements are described as background for analysis. The Army's training system for field grade officers is then examined to determine whether it can meet the developmental needs of the future leaders of the MI Corps. At the conclusion of this research effort, the study proposes a comprehensive training strategy which provides an educational update to all of MI's field grade officers. It also argues for the upgrade the system responsible for the professional development of the Army field grade officers.

1167. The Impact of Mine Warfare Upon U.S. Naval Operations During the Civil War, by Lieutenant Commander Edwin D. Lindgren, USN, 109 pages.

This study investigates the impact of Confederate naval mine warfare against the operations of the U.S. Navy during the Civil War. Mine warfare was a cost effective method for the Confederacy to defend its long coastline and inland waterways. A wide variety of fixed, moored, and drifting mines were deployed and used with effect at locations along the Atlantic coast, the Gulf coast, and along rivers, including those in the Mississippi basin. Despite loss and damage to thirty-five Union naval vessels, mine use had virtually no strategic impact upon the course of war. At the operational level, effects were apparent. Federal naval operations at Charleston and on the Roanoke River were frustrated, in large part because of the mine threat. The impact of mines was great at the tactical level. These cost effective weapons caused delays in Union operations, resulted in involved countermine operations, and caused fear and apprehension in crews. The lessons from the mine warfare experience of the Civil War are still applicable in today's warfare environment. Naval mines are a preferred weapon of minor naval powers and the U.S. Navy will be required to deal with this threat when operating in the World's coastal regions.

1168. The U.S. Flag Merchant Marine: A National Asset?, by Lieutenant Commander John P. Long, USN, 101 pages.

This study investigates the need for a U.S. flag merchant marine. Parameters used are those functions of a merchant marine enunciated by President Roosevelt in 1935: (1) protection of U.S. commerce from unfair foreign trade practices; (2) uninterrupted foreign trade in event of foreign war; and (3) a source of naval auxiliaries. Historically, the U.S. merchant fleet has suffered due to high costs, inefficiencies, and counterproductive legislation. These have significantly reduced the fleet's ability to compete in the international marketplace. Today's U.S. flag fleet contains 348 active ships. If deterioration of the industry remains unchecked, it is estimated there will be only about 217 by the year 2000. This study concludes that the U.S. flag merchant fleet is adequate only to fulfill its role in support of national defense, and principally as a source of manpower not shipping. Projections indicate a shortfall of mariners by the year 2000. The Military Sealift Command is dependent upon that pool of trained mariners for manning its reserve shipping in time of emergency. It is in the national interest therefore to support a vital U.S. flag merchant marine.

1169. Preinduction Standards for Soldiers with a History of Asthma, by Major Brian L. Martin, USA, 142 pages.

Asthma is currently the most prevalent chronic disease of childhood, and disqualifying for Army service. This study investigates the utility of existing entrance standards for asthma by reviewing the noneffective rate for asthma among deployed soldiers during selected American wars. Soldiers

are expected to be world wide deployable, and harsh climates, physical and mental stress, increased incidence of disease and high levels of pollution, dust and smoke make the modern battlefield difficult for asthmatics. The problem of asthmatics on the battlefield is exacerbated by the doctrinal lack of facilities to treat chronic medical conditions in Division level Medical Treatment Facilities. Tests for the evaluation of asthma are divided into screening and diagnostic tests. Each test is then evaluated for accuracy using sensitivity, specificity, positive predictive value and negative predictive value, and for cost by evaluating the test's direct costs, and expertise, time and administrative requirements. Test attributes are assigned weighted values and a decision matrix used to determine what tests would best serve the Army during entrance evaluation. The study finally proposes a working Army definition of Asthma, new, tightened entrance and mobilization standards for asthmatics and lays out one possible methodology for evaluating these patients.

1170. Adequacy of U.S. Army Attack Helicopter Doctrine to Support the Scope of Attack Helicopter Operations in a Multi-Polar World, by Major Mark N. Mazarella, 103 pages.

This study examines current U.S. Army attack helicopter doctrine, tactics, techniques, and procedures (DTTP) to determine their adequacy in supporting the full range of attack helicopter employment in the multi-polar environment of the New World Order (NWO). Using the Attack Helicopter Battalion (ATKHB) as the basis, this study determines those missions U.S. Army attack helicopter units will likely perform in carrying out Army operations doctrine, as well as the doctrinal qualities that would facilitate effective and efficient employment of the ATKHB in executing NWO mission requirements. This study concludes that present U.S. Army attack helicopter DTTP only marginally meets the requirements for employment in support of the full range of Army operations doctrine. This conclusion is based on a lack of versatility and flexibility within current doctrine and on the lack of tactics, techniques, and procedures (TTPs) and evaluative criteria to fulfill doctrinal employment. These shortcomings are attributed to a highly centralized command and control system, an almost exclusive focus on the employment of the ATKHB in a maneuver role in a mid-to-high intensity armor-rich environment, and a comparatively narrow focus on TTPs and mission training at the execution level.

1171. Aspects of Tactical Biological Defense, by Major Timothy F. Moshier, USA, 146 pages.

The threat of biological warfare (BW) directed against our forces is greater today than at any other time in history of modern warfare. This thesis represents the first attempt to answer the question, "What is an effective design for tactical biological defense?" Established criteria for agents of biological origin (ABOs) are analyzed for their applicability to tactical operations. Potential ABOs are evaluated for their usefulness on the tactical battlefield. Information requirements (IRs) for use in intelligence preparation of the battlefield (IPB) are developed. Known and potential delivery means are listed. Analysis of the respiratory threat is

made. Mathematical modelling of potential biological attack scenarios is used to determine BW's potential for limiting forces' freedom of action, and for developing detection requirements and vulnerability assessment tools. Candidate detection technologies are reviewed, and a battlefield detection strategy is developed. Finally, critical tasks for biological detection units are formulated.

1172. Decisions in Operations Other Than War: The U.S. Intervention in Somalia, by Major Vance J. Nannini, USA, 150 pages.

This study investigates the policy decision of whether or not to disarm the various Somali clan factions during Operation "Restore Hope" (December 1992-May 1993). With reference to the Command and General Staff College supplement to the model of analyzing a crisis situation found in FM 100-20, the situation in Somalia in late 1992 is examined in terms of U.S. interests in the region, as well as the nature of Somali society (in terms of historical, economic, political and social aspects). Based upon an examination of those factors, the situation in Somalia is evaluated using the feasibility, suitability, and acceptability criteria to determine if a policy decision of disarming the Somali clan factions would have been an appropriate U.S. response to the crisis.

1173. Command and Control of Communications in Joint and Combined Operations, by Major Jennifer L. Napper, USA, 91 pages.

This thesis analyzes joint doctrine for command and control of communications at the operational level of war. The Joint Task Force structure is used as the model for command and control relationships. The first part of the thesis assesses the current doctrine and discusses the principles of a joint communications system. Doctrinal communications networks to support a Joint Task Force are presented and the command and control of these networks analyzed. The second part of the thesis contains a case study examination of Operation Desert Storm communications. Issues and solutions in joint communications experienced during the operation are analyzed. The structure for the command and control of the networks is assessed and conclusions drawn. The paper concludes with a model for determining communications requirements for future operations based on the mission, theater and communications factors. A discussion of the functional areas for management of joint communications closes the thesis.

1174. An Analysis of the Twenty-One Marine Corps Expeditionary Units (Special Operations Capable) MEU (SOC) Missions, by Major Lawrence D. Nicholson, USMC, 169 pages.

This study examines and analyzes the current status of the Marine Expeditionary Unit Special Operations Capable, or MEU(SOC) program. A detailed analysis was conducted of each of the 21 missions for validity and relevance as MEU(SOC) missions. The methodology used in conducting the research included the issuing of 125 survey questionnaires to Marine Corps field grade officers. This survey asked the respondents to rank each mission in order of importance to the Marine Corps, and comment on its

inclusion as a MEU(SOC) mission. The study found that only four of the 21 missions warranted inclusion as truly "special" operations missions. The study recommended that the remaining 17 missions be deleted from the list of MEU(SOC) missions and be re-named as MAGTF capabilities. This recommendation was based upon their not meeting a series of four established criteria. The missions that were recommended to be retained as MEU(SOC) missions were: (1) in-extremis hostage rescue, (2) tactical and clandestine recovery operations, (3) maritime interdiction operations, and (4) gas and oil platform seizure operations.

1175. Battlefield Framework and How It Relates to a 19th Century Indian Battle - Washita, by Major Michael G. Padgett, USA, 148 pages.

This study relates the battlefield framework found in the 1993 edition of FM 100-5 to a 19th Century Indian War campaign and battle, the Winter Campaign of 1868 and Battle of the Washita. A strong theme throughout the thesis is how well Washita and the Winter Campaign of 1868 would have used the new additions added to the definition of battlefield framework found in the 1993 FM 100-5 edition (if they had existed in 1868). Time, resources, space, and purpose were added to the long standing concepts of close, deep, rear, security, and reserve in the new FM 100-5. The thesis reviews the memoirs and reports of operational and tactical commanders of the Winter Campaign to discover whether the new additions were more useful to the operational and tactical commanders than the long standing concepts. This study emphasizes the importance of history in the formulation of evolving concepts in doctrine. Leaders of the Army in 1868 and 1993 knew that the nature of warfare expected in the future would not resemble the past. Both periods called for new doctrine. An issue addressed in the thesis is how much the past can serve future writers of doctrine.

1176. Nisei Soldiers in World War II: The Campaign in the Vosges Mountains, by Lieutenant Commander Joni L. Parker, USN, 116 pages.

This study is about the 442nd Regimental Combat Team (RCT) during World War II as it assisted VI Corps in the push through the Vosges Mountains in Northern France. The 442nd RCT was composed mostly of Japanese-Americans, or nisei, who volunteered to join the U.S. Army. Behind their contributions were U.S. government policies which precluded Japanese immigrants from citizenship and land ownership, and culminated in the relocation of more than 110,000 Japanese-Americans from the West Coast of the United States. This study briefly examines the Japanese in America, the formation of the 442nd RCT, and its exploits. Its involvement in the campaign through the Vosges Mountains began with its attachment to the 36th Infantry Division (ID) on 13 October and ended on 9 November 1944. This study examines the four battles during the campaign to take Bruyeres, Biffontaine, the Rescue of the "Lost Battalion," and the follow-on mission. This study examines the combat and environmental conditions in the Vosges Mountains. It shows military decision-making from the corps level to regiment level and, in some cases, to company level. It provides a balanced review of events to promote historical accuracy.

1177. Flight Incentive Pay for Army Aviators, by Captain Danny G. I. Pummill, USA, 128 pages.

The U.S. Army is paying incentives under the Aviation Career Incentive Act (ACIA) (to attract and retain qualified aviators) that are no longer justified. The research was designed to determine the Army's need to pay aviators ACIA in order to attract and maintain qualified aviators. The Aviation Career Incentive Pay Program was designed and implemented to prevent highly skilled personnel from leaving the military to take higher paying jobs in the civilian aviation sector. Air Force and Navy pilots make up the primary source of pilots for the civilian aviation sector and are in direct competition for trained aviators. Army pilots who are predominantly trained on helicopters are not heavily recruited by the civilian aviation sector as there is no significant market for helicopter pilots outside of the military. The results of this study indicate that the Army has been paying Aviation Career Incentive Pay to officer and warrant officer aviators for reasons other than those set down in the Act. Most Army aviators surveyed feel they are entitled to the pay, because of their special training and skills. At the time this study was completed there is no established shortage of qualified personnel applying for Army flight school. Additionally, the Army has not experienced any problems retaining qualified aviators.

1178. Intelligence Fusion for Combined Operations, by Major John P. Ritchey II, USA, 109 pages.

The U.S. Army and the national intelligence community are undergoing revolutionary changes in the way intelligence is gathered, processed, and disseminated. The introduction of automation into the U.S. military has brought the modern battlefield into the information age, driving the operational commander's quest for certainty and expectations for intelligence information to new heights. As we anticipate fighting the next war, we will require a system that shares a common picture of the battlefield with all commanders. When dealing with intelligence, we often find a huge information gap between the capabilities of the U.S. forces and those of our potential allies. This study investigates the requirements of a multinational intelligence fusion system for the force projection Army of the future. This thesis researches the current and emerging doctrine on intelligence in combined operations, the lessons learned from the most recent combined operations, the current state of intelligence fusion capabilities, and the C4I for the Warrior concept as the potential solution to meet the requirements of intelligence fusion for combined operations. The study concludes with a basic endorsement of the intelligence fusion concept envisioned in C4I for the Warrior. Current intelligence information systems, such as Linked Operations-Intelligence Centers Europe (LOCE), provide the baseline for intelligence for combined operations.

1179. Senior Leader Mentoring: Its Role in Leader Development Doctrine, by Major Mark L. Ritter, USA, 104 pages.

This study addresses the role of senior leaders as mentors in the Army's leader development process. Principally, this study investigated the proper role of senior leader mentoring as a viable component of the Army's leader development doctrine. It examines civilian and military studies on mentoring to determine the components of mentoring and its benefits as well as detractors for organizations, mentors, and subordinates. The results of an exploratory survey of eleven retired and active duty, active component Army General Officers is analyzed and compared to previous studies on the phenomenon of mentoring. This comparison provides the basis for suggesting the proper role of senior leader mentoring in the Army. Senior leader mentoring's applicability to the unit assignment, institutional training, and self development pillars of the Army's leader development process is analyzed to determine its doctrinal feasibility. This study suggests that senior leader mentoring is a valuable method to use to help develop Army officers. It demonstrates that teaching, coaching, counseling, advising, and sponsoring are valid mentoring activities and as such should be included in the Army's leader development doctrine and become expected behavior by senior leaders to enhance subordinate leader development.

1180. The Mahdist Revolution, by Major Robert N. Rossi, 88 pages.

This paper covers the Mahdist Revolution in the Sudan from 1881 to 1885. Mohammed Ahmed proclaimed himself the Mahdi (the expected one or the deliverer in the Islamic faith), and fought the colonial Egyptian government of the Sudan and the British. Britain was drawn into the conflict by its interest in the Suez Canal, its heavy financial investments in Egypt, and its participation in suppressing the Arabi revolt. Mohammed Ahmed successfully defeated the Egyptian and British forces brought against him and established an Islamic state in the Sudan. He succeeded by effectively combining religious, economic, cultural, and military strategy under charismatic leadership.

1181. The Intelligence and Reconnaissance 1935-1965: Lost in Time, by Major Richard J. Runde, Jr., USA, 126 pages.

This study investigates the roles, missions, and functions of the infantry regiment's Intelligence and Reconnaissance (I&R) platoon. The investigation begins in 1935 and ends with the I&R platoon's disappearance from infantry force structure in 1965. The present infantry brigade remains the only tactical formation without an organic human intelligence collection and reconnaissance organization. What were the reasons that it was removed from the infantry brigade force structure? Period I&R platoon doctrine, training, and tables of organization are compared and contrasted with first hand combat experiences from World War II and Korea. The impact of national security policy, strategic and tactical nuclear weapons and intra-service rivalries about individual U.S. armed forces capabilities and missions during the Cold War are also examined. The study concludes that the I&R platoon's disappearance began with its tactical employment during

the Korean War. Later during the PENTANA study in the late 1950s, the I&R platoon had lost so many personnel billets, that it was no longer a tactically effective organization.

1182. The Capabilities of the U.S. Government to Collect and Analyze Economic Intelligence, by Major Erica Ballard Russell, USA, 118 pages.

This study investigates the capabilities of the United States Government to collect and analyze economic intelligence for possible use by U.S. corporations. Focusing predominantly on the U.S. Intelligence Community it reviews the missions, collection methods, and analytical responsibilities of the Central Intelligence Agency, Defense Intelligence Agency, National Security Agency, and other government entities with economic intelligence functions. The study also reviews the relation between economic competitiveness and national security as articulated by the President and the Department of Defense. It discusses the role of foreign governments in conducting economic espionage for and providing economic intelligence to their own corporations to promote economic competitiveness. The capabilities of the U.S. Intelligence Community are described and evaluated against six criteria: accuracy, cost, releasability, suitability, target accessibility, and timeliness. The study finds that the United States Government can collect and analyze economic intelligence that issuable by private U.S. industry. The Community would need to make some changes to focus on detailed industry information vice broad economic trends; internal assets would require redistribution to perform the mission.

1183. In 1846, During the War With Mexico, was President Polk's Decision to Employ a Battalion of Mormons a Military or Political Decision?, by Major Sandy M. Sanders, USA, 120 pages.

This study looks into the underlying reasons the Mormon Battalion was called, organized, and deployed. 1846 was an unsettling year for the United States and the Polk Administration. Possible war with Britain loomed over the Oregon issue, the diplomatic break and subsequent war with Mexico over Texas' annexation, and Polk's desire to personify the concept of Manifest Destiny all contributed to a very dangerous time period in our nation's history. For the Mormons, 1846 was a year of great upheaval. Earlier that year violent mobs expelled them from their holy city of Nauvoo, Illinois. Led by Brigham Young, they fled westward across the southern plains of Iowa to an unknown destination. However, in June, Young was forced to delay the church's migration at Council Bluffs, Iowa, setting up camp on the Missouri River. While there, Army Captain James Allen, representing the Polk government, asked for 500 volunteers to fight in the War with Mexico. This study proposes answers to what motivated President Polk to ask for these 500 men to fight in a war that had more volunteers than it could use, and why did Brigham Young agree to provide them?

1184. Airborne Forcible Entry Operations: USAF Airlift Requirements, by Major Rowayne A. Schatz, Jr., USAF, 130 pages.

As the United States transitions towards a national military strategy based on power projection instead of forward deployed armed forces, contingency forces and their capabilities will become increasingly more important. A key capability required to successfully implement a force projection defense strategy is the ability to conduct a forcible entry. In a forcible entry situation, either airborne or amphibious forces could secure a lodgment and prepare for the introduction of follow-on combat forces. This study investigates the requirements USAF airlift forces must meet to successfully support airborne forcible entry operations. It reviews airlift contributions to past airborne operations in World War II, Grenada, and Panama. Then this study surveys the current world situation to determine what distances airlift forces must cover and the threat environments they must penetrate to successfully deliver airborne forces to potential target areas. Potential airborne forcible entry targets are developed by listing countries involved in armed conflict, drug trafficking, or state-sponsored terrorism, and removing littoral areas. This study then determines lift, distance, threat survivability, and training requirements for USAF airlift forces to successfully support airborne forcible entry operations.

1185. A Force Structure Analysis of Strategic Sealift: How Much is Enough?, by Lieutenant Commander Barbara J. Scheidt, USN, 163 pages.

This study is an analysis of the elements, doctrine, achievements, shortfalls and future requirements of the strategic sealift force in order to support two major regional conflicts. The study examines the successful sealift achievements, and the shortfalls that occurred in Merchant Marine manpower and the Ready Reserve Force prior to and during Operation Desert Storm. The analysis reviews Desert Storm as a model for future conflicts that involve sealift requirements. The recommendations of the Department of Defense Mobility Requirements Study are also examined in order to develop the requirements to support the National Military Strategy. The study concludes that additional strategic sealift forces are required in order to support two worst-case major regional conflicts. The U.S. policy that establishes the use of foreign chartered ships during strategic sealift operations must be revised, and current shortfalls in the Merchant Marine industry and the Ready Reserve Force must be resolved in order to overcome challenges that are present in the strategic sealift force.

1186. Unification of South Asia, by Lieutenant Colonel Hardev Singh, Indian Army, 95 pages.

The thesis proposes unification of South Asia, comprising India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, and Maldives into a single democratic federal structure, like the U.S. with certain amount of autonomy to the states/provinces. The study first establishes the major instability problems in the region and then analyzes the feasibility and suitability of South Asia's unification into a single nation. A detailed examination of

the Kashmir problem concludes that India and Pakistan are unlikely to find a solution to this highly emotional issue which has its roots linked to the illogical partition of the British India in 1947. The conclusion highlights as to why the decision to divide British India was incorrect and how this partition has aggravated the religious division between the Hindus and Muslims instead of resolving the same. The detailed analysis of Hinduism and Islam in South Asia establishes that religious division in South Asia would be reduced by unification. The study concludes that the unification, besides bringing stability to the region, would bring other major benefits including cutting down the defense budget of South Asia by two-third and a reduction of armed forces by 48 Infantry/Armed/Mountain Divisions.

1187. Opportunities Gained and Lost: J. E. B. Stuart's Cavalry Operations in the Seven Days Campaign, by Major James R. Smith, USAF, 143 pages.

This study evaluates Confederate cavalry operations 12 June to 3 July 1862, as a prelude to and as a part of the "Seven Days Campaign." General Robert E. Lee's Seven Days Campaign succeeded in defeating a Union offensive aimed at Richmond, Virginia and served as an important turning point in the American Civil War. The thesis seeks to determine the substantive contributions General J. E. B. Stuart's cavalry brigade made to this Confederate victory, as well as to assess the strengths and shortcomings of his particular style of mounted employment. Stuart launched an armed reconnaissance 12-15 June 1862 known thereafter as the "Chickahominy Raid" that provided intelligence vital to General Lee's success in the campaign and helped to bolster sagging Confederate morale. This was the first of the Confederate cavalry leader's renowned "raids," a style of operation that would be adopted by other Confederate cavalry leader's renowned "raids," a style of operation that would be adopted by other Confederate mounted units and the Union cavalry as well. Stuart also attempted to strike out independently during the Seven Days Campaign itself, but his activities in this regard were not well synchronized with the rest of Lee's army. As a result, Stuart missed opportunities to play a more decisive role in the battles outside Richmond.

1188. Dragoon or Cavalryman, Major General John Buford in the American Civil War, by Major Mark R. Stricker, USA, 123 pages.

This study investigates the American Civil War role and contributions of Major General John Buford. Buford, a 1848 graduate of the United States Military Academy, began his Army career on America's frontier with the First United States Dragoons. With the outbreak of the Civil War, Buford was selected to command a cavalry brigade in John Pope's Army of Virginia, and participated in the Second Manassas Campaign. Buford went on to make significant contributions to the Union efforts in the Eastern Theater; however, history has generally portrayed Buford as a one-dimensional character based on his stand along McPherson and Seminary Ridges on the first day of the Battle of Gettysburg. Several historians have presumed that the dismounted cavalry (or Dragoon) tactics used by Buford at Gettysburg were the culmination of a method of fighting which he helped

develop and propagate within the Union cavalry. However, this thesis shows that contrary to this Dragoon image, Buford was in fact a remarkable cavalry officer. His battlefield tactics were fairly traditional, but it was not in pitched battles that Buford excelled. His significant contributions were in the established roles of cavalry; performing reconnaissance and providing security for the army he was supporting.

1189. United States Policy Toward Myanmar (Burma), by Colonel Surapong Suwana-adth, Royal Thai Army, 125 pages.

This study examines U.S. policy toward Myanmar (Burma) as it relates to the overall U.S. strategy in Southeast Asia in the post-Cold War era. The current situation in Burma poses challenges to the U.S. foreign policy in areas such as democracy, human rights, drugs, regional stability and an emerging market economy. The study includes a review of the history of Burma, U.S.-Burma relations as well as Burma's relations with her neighbors. It assesses and examines problems and current situation in Burma from the U.S. point of view and from a regional perspective. The study also examines the interests and objectives of the U.S., China, Thailand, India, Bangladesh, and ASEAN concerning Burma. U.S. Army Command and General Staff Colege Strategic Analysis Methodology (SAM) provides the framework for an analysis of the current U.S. policy and the development of alternative U.S. policy options employing the diplomatic, economic, military, and informational instruments of national power. Each option is evaluated and a future course of action is recommended.

1190. Can the Trinidad and Tobago Defense Force Be Used Successfully as an Instrument of Nation Building in Trinidad and Tobago?, by Lieutenant Colonel C. Basil Thompson, Trinidad and Tobago Defense Force, 195 pages.

This study examines the role that military forces in less developed countries can play in nation building. It analyses the nation building contributions of the armed forces of Argentina, Brazil, Malaysia, Republic of Korea and Venezuela in their respective countries. The Civilian Conservation Corps that existed in the U.S. in the 1930s and the Junior Reserve Officer Training Corps are also analyzed. The evidence shows that armed forces can assist, in great measure, in nation building. There is, however, the danger that they can become politicized and eventually seize political power. The evidence reveals that there can also be economic and social disadvantages to military nation building. The study shows that the patterns of civil-military relations that exist in less developed nations could influence the success or failure of military nation building programs. By looking at the advantages and disadvantages of military involvement in nation building, the resources of the Trinidad and Tobago Defense Force, and the need for nation building activities in Trinidad and Tobago, the study concludes that the Trinidad and Tobago Defense Force can successfully be used for nation building in Trinidad and Tobago.

1191. A Recommendation for the Heavy Division Command Group, by Major Philip R. Tilly, USA, 163 pages.

This study investigates the heavy division command group's role, functional requirements, organization, and operation during combat operations. The thesis draws on five sources of information: historical references, doctrinal literature, current publications, a general officer survey, and interviews. The overall role of the command group is to assist the commander in his decision making process and support him in communicating those decisions. The most important functional requirements a command group must provide are communications, information, mobility, and protection. The command group structure and organization will adjust, based on situational requirements, commander's preferences and available equipment and personnel. The "model" command group would include: the G3 or deputy; the deputy G2; a Military Intelligence CPT, deputy Fire Support Coordinator, Air Liaison Officer, two battle captains, signal officer, vehicle mechanic, two Military Police teams, commander's aide, and two operations sergeants. The equipment would include: two M2s (for command and control vehicles), one M113 (for the Air Liaison Officer), two Military Police hardtop M998s, and two UH-60 aircraft. Communications equipment would include: Single Channel Ground and Airborne Radio Systems,; a single channel Tactical Satellite capability; Multiple Subscriber Equipment, and a Global Positioning System module to provide navigation support.

1192. Eliminating Fratricide From Attack Helicopter Fires: An Aviator's Perspective, by Major James A. Towe, USA, 133 pages.

In the aftermath of the euphoria brought on by our military victory in the Persian Gulf War, is the realization that we still have much to learn. The Persian Gulf War appears to have validated the quality of U.S. doctrine, leadership and military prowess. It showcased the technical superiority of our equipment, and confirmed under fire the courage and competence of our soldiers, sailors, airmen, and marines. Yet, even in an overwhelming victory there are painfully hard lessons to be learned, or in the case of fratricide, relearned. Perhaps no other aspect of our failures strike the military psyche harder than fratricide. This study will suggest that we do not have to accept the fratricide statistics of the past, however factual, as inevitable of future U.S. conflicts. It will propose that the facts of fratricide should be gathered not as a casualty prediction planning tool, but as a focus to design training and operational procedures, which in conjunction with advanced technology will work towards the significant reduction if not the elimination of fratricide from attack helicopter fires.

1193. The Factors of Soldier's Load, by Major Stephen J. Townsend, USA, 117 pages.

This study examines the factors that cause or contribute to the overloading of dismounted combat soldiers in the Army of the 1990's. This examination considers the body of literature on the subject, primarily post-World War II, to identify what factors cause soldiers to carry too much weight into

battle. The goals of the study are to identify the causative factors and increase leader understanding of the problem and review previous recommendations towards solving it. From the research, the study identifies twelve factors that cause or contribute to soldier's overload: lack of appreciation of the problem, fear and fatigue, the fear of risk, the fire load, the drag of orthodoxy, failures of discipline and the enforcement of standards, myths of peacetime training, the nature of the soldier, lack of transport, the effects of technology, terrain and weather, and physical conditioning.

1194. Vision to Practice: The Transition of From the Sea Into Joint Doctrine, by Major Craig A. Tucker, USMC, 108 pages.

This study analyzes the ability of the Naval Service to translate the vision articulated in From the Sea into doctrine that synchronizes Naval Service capabilities with the Joint Operational Functions of maneuver and command and control. From the Sea is analyzed within the context of previous naval strategies. The Joint Operational Functions are analyzed as emerging Joint Doctrine. From the Sea commits the Naval Service to full participation in the Joint arena and changes the focus of the Naval Service from sea control to power projection. This study concludes that this commitment and new focus will require the Naval Service to change its understanding of maneuver and reevaluate its command structure. The author recommends that the organization and command of Naval Task Forces be structured to according to the mission assigned and that Naval Officers receive comprehensive training on the requirements of land maneuver.

1195. Doctrine, Organization, and Employment of the 4th Cavalry Group During World War II, by Captain John N. Tully, USA, 139 pages.

This study investigates the role played by VII Corps' World War II Cavalry Group, the 4th Cavalry Group, in the European Theater of Operations. The thesis seeks to determine if the group executed its doctrinal mission during the war. Prior to and during World War II cavalry mechanized and as a result the U.S. Army revised the doctrinal role of cavalry. Prior to mechanization, cavalry performed the full range of offensive and defensive missions. These missions included traditional cavalry missions such as reconnaissance, pursuit, and exploitation. However, with mechanization the doctrinal role of mechanized cavalry narrowed to only one of horse cavalry's former missions, reconnaissance. Equally important, the tactics and techniques employed by mechanized cavalry reconnaissance units shifted to emphasize infiltration tactics and avoidance of combat. This study revealed that the 4th Cavalry Group as organized for World War II was deficient in several key areas; specifically, the doctrinal mission was flawed, the doctrinal employment technique was flawed, and the group lacked organizational depth. The 4th Cavalry Group did not perform its doctrinal mission as it was narrowly defined before the war. It did perform reconnaissance extensively, but generally in support of other missions, such as security or offensive operations.

1196. Heavy Close Air Support: The B-1 as a Close Air Support Weapon, by Major Daniel R. Walker, USAF, 153 pages.

This thesis determined the currently equipped B-1 bomber to be a partially effective close air support (CAS) weapon when enemy and friendly forces are not intermingled. With improvements planned over the next ten years the aircraft will be fully effective. The conclusion was reached by examining the CAS mission as performed by the U.S. Army and Air Force, the criteria for effective CAS, and the current and planned capabilities of the B-1. The criteria were derived from requirements developed by the Army and Air Force to determine the effectiveness of alternative CAS3 aircraft. These requirements were developed during a search for an A-10 replacement. Ten criteria were established in three areas: responsiveness, firepower effectiveness, and survivability. The criteria evaluated were availability, proximity, flexibility, communications capability, target acquisition, payload, accuracy, lethality, maneuverability, and probability of survival. The B-1 capabilities were determined using technical orders and instructional texts. Capabilities planned in the B-1 conventional upgrade program were also evaluated. Weapon effectiveness data were determined using Joint Munition Effectiveness Manuals on personnel, armor, and artillery targets. Survivability evaluations included ESAMS and RADGUNS modeling against SA-4/6/7/9/11/13/14 and ZSU-23/4 threats.

1197. Family Support Groups: Making the Most of a Combat Multiplier, by Major Brian F. Waters, USA, 125 pages.

This study examines Army Family Support Groups (FSGs). The focus of the research is on FSG leadership and whether the Army should hire paid FSG coordinators or continue to use volunteer leaders. The study demonstrates that FSGs are beneficial to the Army. It also recognizes that ineffective FSGs can be detrimental to a unit. The study presents characteristics of effective FSGs and uses them to develop required competencies for FSG leaders. It analyzed the resources required to employ paid coordinators in active duty brigade equivalents. Such a program would cost roughly \$32,000 per brigade, or nearly \$6 million for the active Army. The study analyzes payoffs and disadvantages to paid FSG coordinator strategy. It recommends that the Army should continue to use volunteer FSG coordinators because the payoffs of employing paid FSG coordinators do not outweigh the costs. By making the changes to the current system this thesis recommends, the continued employment of volunteer leaders would be even more enhanced.

1198. Coalition Logistics: A Case Study in Operation Restore Hope, by Major Lamont Woody, USA, 204 pages.

America's heritage is rich in military participation in coalition operations. U.S. Army logisticians provided support to coalition forces during Operation Restore Hope. This United Nations' sponsored mission occurred in Somalia from 5 December 1992-4 May 1993. Field Manual 100-5, Operations, the cornerstone of U.S. Army doctrine, provided insight to operations other than war and coalition operations (considered ad hoc). U.S. Army logisticians provided support to the coalition forces within the

framework of the tactical logistics functions, as described in FM 100-5. In each function (manning, arming, fixing, fueling, and sustaining) U.S. Army logisticians provided coalition partners the support required. Logisticians provided health service support (medical) logistics, evacuation, and preventive medicine; field service support (water purification, mortuary affairs, and laundry); and general supply support (Classes I-VIII and IX, host nation support, Logistics Civil Augmentation Program, and Logistical Support Elements). Virtually no logistical doctrine is available for coalition operations. Due to differences in standards among coalition partners, future operations must consider increased interoperability of equipment, personnel, and training. U.S. Army logisticians achieved success in Somalila through innovative logistics techniques by leaders at all levels in USCENTCOM and in Joint Task Force Somalia, and not by any existing doctrine.

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